FACT SHEET
FOR DRAFT LPDES PERMIT NO. LAS000301 FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) WITHIN ORLEANS PARISH OWNED OR OPERATED BY

SEWAGE AND WATER BOARD OF NEW ORLEANS (S&WB)
LA DEPT OF TRANSPORTATION AND DEVELOPMENT (LDOTD) (DISTRICT 02)
CITY OF NEW ORLEANS
PORT OF NEW ORLEANS (PONO)
JEFFERSON PARISH
ORLEANS LEVEE DISTRICT (OLD)

AI 90429 / PER20060001

Permit No.	LAS000301
Issuing Office:	State of Louisiana Department of Environmental Quality Office of Environmental Services Water and Waste Permits Division
Prepared By:	Linda Gauthier Municipal and General Water Permits Section (225) 219-0801
Date Renewal Application Received:	February 1, 2006
Permit Action:	Issuance of an LPDES permit to replace the NPDES permit that was originally issued by the EPA on January 17, 1997, and reissued effective January 1, 2001, for the Municipal Separate Storm Sewer Systems (MS4s) within Orleans Parish
Date Prepared:	February 22, 2006

REISSUANCE OF AN EXISTING PERMIT

The Louisiana Department of Environmental Quality is today proposing to reissue the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Permit No. LAS000301 issued for discharges from the Municipal Separate Storm Sewer Systems (MS4s) within Orleans Parish owned or operated by The Sewage and Water Board of New Orleans (S&WB), the City of New Orleans, the Louisiana Department of Transportation and Development (LDOTD) (District 02), the Port of New Orleans (PONO),

Jefferson Parish and the Orleans Levee District (OLD). The NPDES permit was originally issued by the Environmental Protection Agency (EPA) on January 17, 1997, and became effective March 1, 1997. Following an evidentiary hearing, the NPDES permit was reissued by the EPA on January 1, 2001, and became effective on that date.

Today's proposed permit includes a number of conditions based on the permittees' past implementation of the program. It is expected that, as post-storm recovery continues in the area, it will become necessary to change some elements of the previous Storm Water Management Program (SWMP) to address post-Katrina needs and conditions. The permittees will notify the Water Permits Division as they become aware of program changes related to post-Katrina recovery and redevelopment issues. The permit will be modified as needed to incorporate any changes designed to make the SWMP more effective in controlling the discharge of pollutants from the regulated area.

OVERVIEW OF COPERMITTEES' AREAS OF RESPONSIBILITY

The Orleans Parish MS4 storm water management program covers the entire parish and each of the permittees has developed and implemented a Storm Water Management Program which identifies sources of pollution and describes Best Management Practices (BMPs) that are used to prevent or control discharges of pollutants into storm water runoff from areas other than agricultural properties located within Orleans Parish.

The land within Orleans Parish lies at or below mean sea level (MSL) which has necessitated unique facilities such as flood protection and hurricane protection levees, open drainage canals, and pump stations to provide adequate drainage and flood protection for the entire parish. The Mississippi River levees are intended to protect against flood stage water levels in the river, while the remaining levees are intended to protect against hurricane induced tidal surges in both Lake Pontchartrain and from the Barataria Basin to the south.

The average elevation of the surface of the streets of the populated area is -5' below sea level. The average tidal water of Lake Pontchartrain is +1.0', with the Mississippi River surface water elevation varying but significantly higher. Because of the area's flat topography and poor soil strength, rainwater is collected and transmitted by a flat grid system of canals, and pumped over the levees into surrounding waters. The drainage system is dependent upon 22 pumping stations to handle rain events. In addition, there are 13 underpass pumping stations, which pump water from elevations as low as -12' below sea level. Two of the underpass stations are the responsibility of the LDOTD. The west bank station is located in LDOTD right-of-way at the General De Gaulle underpass and the Mississippi River Bridge ramp. On the east bank, underpass pumps are located at I-10 (Pontchartrain Expressway) and the Southern Rail Road tracks and Metairie Cemeteries.

Because the land within Orleans Parish lies below MSL, there is no gravity drainage discharge outlet from the MS4s. Rain water that drains into the MS4 is removed entirely by a system of conveyance channels and canals, storm water drainage lift stations, and pumps. The conveyance channels and canals transport storm water runoff from local gravity collection basins to Parish-owned drainage pumping stations. Pumps at the pumping stations lift the water from

the canals to the higher water surface elevation of the water body that will receive the storm water discharge. The pumping stations currently discharge into either Lake Pontchartrain or to the Mississippi River, and to their tributaries. The Orleans Parish Drainage Department maintains a constant water level in the drainage canals to minimize fluctuating groundwater levels and to reduce regional subsidence and canal bank slope failures.

Portions of the LDOTD federal highways I-10, U.S. 11 and U.S.90 drain storm water runoff into the Bayou Sauvage National Wildlife Refuge impoundment area, located in eastern New Orleans. This impoundment area is managed by the U.S. Fish and Wildlife Service to enhance over wintering waterfowl and bird populations in the urban setting. The LDOTD state and federal highways located outside of the pumped levee system drain into area marshes.

Nearly all of the Port of New Orleans (PONO) real estate is within Orleans Parish and is located along the Mississippi River and the Inner Harbor – Navigational Canal (IH-NC). On the Mississippi River most PONO property, although located on the floodside of the levees and floodwalls, does drain into the S&WB drainage system via valved pipes through the levees and floodwalls. Otherwise, stormwater runoff gravity flows into the river or is pumped into the river via PONO pumps. PONO roads located outside of the pumped levee system drain into the river or canal or into S&WB storm water drainage system if within the levee system. On the IH-NC, PONO property located on the floodside of the floodwalls and levees drain into the IH-NC primarily via overland gravity or via small drainage pumping stations owned and operated by PONO.

PONO is working to develop an Environmental Management System (EMS). Implementation of an EMS allows facilities to document procedures, monitoring activities, training and inspections to ensure all areas of the Port's activities are evaluated for environmental impacts that could be caused by daily activities. A properly implemented EMS will ensure that steps are taken to minimize these potential environmental impacts on a daily basis. The EMS program will become a critical component of the planning and development process, and will be a tool to ensure compliance with environmental regulations from the design through operations stages of PONO activities.

The S&WB operates and maintains nearly 180 miles of open and subsurface canals within Orleans Parish that collect storm water from rain events. The S&WB Departments of Networks and Building and Grounds Maintenance perform routine and as-needed inspections and maintenance of drainage canals, storm water catch basins, drop inlets and drainage lines in accordance with the SWMP and the System Maintenance program. They are responsible for the design, construction, and operation and maintenance of most storm water drainage canals, storm water drainage lift stations, and pump stations within the boundaries of the MS4. The drainage system is financed by revenues from three-mill, six mill, and nine mill ad valorem taxes restricted exclusively for drainage services. The collected revenue is used by the S&WB for operation and maintenance of the system, for improvements, betterments, and replacements, and to provide for the payment for interest and principal on the bonds payable.

The S&WB Department of Networks in conjunction with the City of New Orleans Department of Public Works performs routine maintenance and as needed cleaning of drop inlets

and catch basins. In addition, the City of New Orleans Department of Sanitation conducts street sweeping and flushing of major thoroughfares on a rotating basis and litter control activities including routine trash removal and concentrated cleanup efforts after Mardi Gras parades.

The City of New Orleans Department of Public Works is responsible for the maintenance of streets, removal of abandoned vehicles, repairing and replacing traffic sign as well as traffic light outages. The Department is also responsible for maintenance of manholes, subsidence, catch basins, curbs, shoulders, ditches and sidewalks. The City of New Orleans has zoning and building code ordinances to prevent the deposition of construction materials or material generated during demolition activities into gutters, surface drainage, or waterways. The City zoning and building code mandates that any salvageable materials generated during demolition activities be recycled and prohibits the deposition of any salvageable construction materials into landfills or otherwise disposing of recyclable materials. During the post-Katrina recovery period the U.S. Army Corps of Engineers and contractors are responsible for the removal and disposal of flooded automobiles and other types of motor craft that were deposited by flood waters onto public easements or public property; post-hurricane-related construction and demolition debris, white goods, solid waste; and other hurricane related waste materials. During the post-Katrina recovery period every reasonable effort will be made to remove recyclable waste from debris and see that both the recyclable materials and the remaining debris are handled in an environmentally responsible manner.

The OLD is responsible for the maintenance and repair of storm water drainage inlets and conduits located within the non-residential portions of Lakeshore Drive and those within the recreational areas adjacent thereto. Additionally, the OLD operates and maintains levees, floodgates, and associated valves which comprise a portion of the Orleans Parish Flood Protection System.

The S&WB Department of Environmental Affairs is responsible for conducting investigations of complaints of inappropriate application of pesticides, herbicides and fertilizers within its jurisdiction. Observed violations are reported to the Directors of the Department applying the herbicides so that corrective action may be taken. Public education on the correct disposal of pesticides takes place at numerous festivals that the Department of Environmental Affairs participates in, as well as through telephone calls received from citizens inquiring about correct disposal methods. The City of New Orleans Department of Parks and Parkways is the city agency responsible for the maintenance of some public green space within Orleans Parish, including neutral grounds, parks, playgrounds, and the grounds of some public buildings. The Orleans Levee Board is responsible for grounds maintenance of schools and the lakefront. Areas maintained by the Audubon Institute, City Park, the interstate highway system, and other public land under the jurisdiction of the State of Louisiana or the federal government are not maintained by the department. The City of New Orleans Mosquito and Termite Control Board applies pesticides and insecticides at rates dictated by weather conditions and how active mosquitos are in a given season.

The S&WB inspects construction sites in the unincorporated areas of the parish and checks all paperwork (NOI, SWPPP, etc.) for completeness. During the inspections they examine the use of BMPs and the storage and disposal of waste materials. The City of New

Orleans is responsible for regulating construction activities within all portions of the MS4 within the City boundaries.

The Illicit Discharges and Improper Disposal condition in the permit requires that non-storm water discharges other than the allowable non-storm water discharges to the MS4 be prohibited. Prior to the landfall of Hurricanes Katrina and Rita, the S&WB began a multi-year program to minimize unauthorized discharges from the East Bank collection system and to ensure that the collection system has adequate capacity to convey peak flows to the East Bank Wastewater Treatment Plant (ESWWTP). A Corrective Action Plan describes the remedial measures to be implemented to address and resolve issues related to gravity sewer, pump station and force main capacity and address measures intended to minimize unauthorized discharges. The S&WB has characterized and analyzed the hydraulic capacity of the collection system, including long-term flow monitoring, groundwater monitoring, pressure monitoring of force mains, pump station run-time data collection, and investigation of non-dewaterable sewers by use of sonar technology. Much of the Post Katrina recovery effort will be devoted to reevaluating the Corrective Action Plan, implementing changes made to the Corrective Action Plan, and repairing and rehabilitation of the sewage collection system and the treatment plant. The S&WB removes floatable debris from the bar screens located immediately before water enters the pump stations. The debris is put into trucks and disposed of as solid waste. Clogged drain lines in the subsurface drainage system are cleaned by the Network Department as needed. The S&WB maintains a record of the quantity of floatable debris removed from pump station bar screens at two or more pump stations. PONO inspects and cleans trash screens at the suction of the pumps regularly in advance of a major rain event to collect solids and floatables. Sumps are cleaned out to remove accumulated silt. The City of New Orleans oversees routine garbage collection services, disposal services and litter maintenance within New Orleans. Under ordinary circumstances they ensure the overall cleanliness of New Orleans streets and public right of ways. During the post-Katrina recovery period the U.S. Army Corps of Engineers and contractors will play a critical role in cleaning up hurricane-related debris and recycling recoverable materials in the Parish and surrounding areas. The New Orleans Department of Sanitation currently has a contract with Sardie and Associates to promote educational programs within the public school system and to educate the citizens of New Orleans regarding recyling and litter issues.

The S&WB has in place a process for responding to complaints of illicit discharges and is in the process of implementing a more stringent program.

The S&WB receives reports of spills and investigates those reports immediately. If the source is located, the responsible party is expected to clean up the spill immediately. In cases where the responsible party is not identified or when the responsible party does not immediately clean up the spill then the S&WB contacts a contractor who cleans it up. The responsible party is billed for the clean up costs. The employees in the Environmental Affairs Division receive regular Hazwoper training. Every industrial facility inspection that is conducted by the Environmental Affairs Division addresses requirements for Spill Prevention Control and Countermeasure (SPCC) Plans and secondary containment.

The Industrial and High Risk (I&HR) program requires the permittees to identify and control pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the co-permittees determine are contributing a substantial pollutant loading to the MS4. The Department of Environmental Affairs maintains a list of NPDES and LPDES permit holders in the city. The list is updated regularly and includes a list of facilities covered under general permits and facilities that are subject to the Industrial and High Risk Inspection and/or Monitoring Program.

The proposed permit is similar to the 2001 permit, and will authorize the discharge of storm water from the MS4s owned or operated by The Sewage and Water Board of New Orleans (S&WB), the City of New Orleans, the Port of New Orleans (PONO), Jefferson Parish, the Louisiana Department of Transportation and Development (LDOTD) (District 02), and the Orleans Levee District (OLD) consistent with the terms of the permit.

I. BACKGROUND

Federal Environmental Protection regulations found at 40 CFR 122.26 define storm water discharges that require NPDES permits. 40 CFR 122.26.D.3 specifically states that storm water discharges from large and medium MS4s require an NPDES permit. As an NPDES-authorized state, the Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Services is authorized to issue LPDES permits, including permits for storm water discharges from large, medium and small MS4s (see LAC 33:IX.2511.A.3 and LAC 33:IX.2519). The EPA Storm Water Phase II Final Rule which promulgated regulations for storm water discharges from Small MS4s was published on December 8, 1999 in the *Federal Register*. Regulations found at 40 CFR 122.34(a) and LAC 33:IX.2523.B require Small MS4s to implement six minimum control measures to reduce pollutants in urban storm water discharges to the Maximum Extent Practicable (MEP) and those six minimum control measures are a requirement of the LPDES General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer Systems. In order to consistently regulate storm water discharges from urbanized areas and to provide clear criteria for judging program implementation and effectiveness, EPA guidance recommends that individual permits for large and medium MS4s incorporate the Phase II standards for regulated Small MS4s. In accordance with EPA's Storm Water Phase II Final Rule and EPA's 8/1/96 policy "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits," the proposed Phase I MS4 permit requires the use of best management practices (BMPs) to control the quality of storm water discharges to the MEP standard from the regulated area and the development of measurable goals to measure the effectiveness of the BMPs that are implemented in accordance with the Storm Water Management Plan (SWMP). The EPA policy document is available online at http://www.epa.gov/npdes/stormwater/.

MS4 technology standards of MEP and an effective prohibition on non-storm water is the statutory standard that establishes the level of pollutant reductions that operators of regulated

MS4s must achieve. Regulated MS4s shall require controls to reduce the discharge of pollutants to the MEP, including management practices, control techniques and system design and engineering methods. In order to better assess progress in achieving MEP, the Measurable Goals required for regulated Small MS4s has been included in the renewal permit. In order to maintain consistency in regulating storm water discharges from large, medium and regulated Small MS4s the renewal permit requires that the permittee develop Measurable Goals (see Part II, item #13 of permit) for the BMPs identified in the SWMP and used to satisfy requirements of the control measures identified in the permit.

The LDEQ is today proposing to reissue the NPDES permit LAS000301 that was originally issued by the Environmental Protection Agency (EPA) for Municipal Separate Storm Sewer Systems (MS4s) within Orleans Parish that became effective on January 1, 2001. The existing permit authorizes the discharge of storm water from the Orleans Parish MS4s owned or operated by The Sewage and Water Board of New Orleans, the City of New Orleans, the PONO, Jefferson Parish, the LDOTD (District 02), and the OLD.

The renewal permit and this fact sheet were adapted from, and closely correspond with, EPA's fact sheet and the existing permit. During the development of the renewal permit, the monitoring parameters, the number and location of outfalls, and the frequency of monitoring were reevaluated. Proposed changes are discussed in Section II below.

The location of the initial storm water outfalls that were designated as representative outfalls for monitoring purposes were assigned based on the land use activities in the areas drained by the outfalls. Outfalls 001, 002, and 003 were designated as representative of storm water discharges from residential areas. Outfall 004 was designated as representative of storm water discharges from a commercial area, and Outfall 005 was designated as representative of storm water discharges from an industrial area. Although these outfall numbers and locations may remain unchanged, the permittees may find that the representative outfall locations need to be moved to a new location as Orleans Parish redevelops as a result of post-Katrina recovery efforts. In the event that a new outfall location or a new description of an existing outfall becomes known that better represents storm water quality from one of the land use areas specified in the permit, the permittees shall notify the Water Permits Division in writing. The notification must include the outfall number, a description of the new outfall location, and a short justification for changing the outfall location and/or description. Unless otherwise notified by the Water Permits Division, the permittees shall commence monitoring at the new outfall location 30 days from the date of written notification.

The permittee's SWMP is attached as an addendum to the permit and will be available for public comment during the public notice comment period.

II. SUMMARY OF PROPOSED CHANGES

The major differences in the renewal permit and the existing permit include:

1. Incorporation of the following control measures in the SWMP requirements in the renewal permit:
   Pollution prevention/good housekeeping for municipal operations.

2. Clarification that authorized discharges must be protective of water quality (Part I.B.1) and the stipulation that permittees must describe how the storm water management program addresses pollutants of concern with regard to water quality impairment.

3. The requirement that the permittees develop and implement BMPs for the control measure "Pollution Prevention/Good Housekeeping for Municipal Operations".

4. The requirement that the permittees develop and implement Measurable Goals to assess the effectiveness of the BMPs used to satisfy the requirements of the Control Measures specified in Permit Part II.A.1-12.

5. Removal of the monitoring requirement for Trivalent Chromium (Cr III) because concentrations reported in the past on DMRs have been negligible when compared to the state water quality criteria for acute toxicity and chronic toxicity. See Part V for specific details.

6. Removal of the monitoring requirement for Diazinon because recent DMRs report that the pesticide is rarely detected in storm water discharges and because the US EPA and the registrants agreed to completely end the production, formulation and sale to retailers during 2003, and to buy back any products that remained with retailers at the end of 2004. This action makes the pesticide unavailable to the general public for overuse and unavailable to the general public for misapplication, especially just before rain events. See Part V for specific details.

III STATE WATER QUALITY STANDARDS

Receiving waters for discharges from the MS4s are:

041001 – Lake Pontchartrain
041002 – Lake Pontchartrain
041301 – Bayou St. John
041302 – Lake Pontchartrain Drainage Canals
041501 – Inner Harbor Navigation Canal
070301 - Mississippi River

All of the basin subsegments listed above are currently meeting state water quality standards with the exception of subsegments 041001 and 041302. The two receiving waters that are not meeting state water quality standards are listed below with summaries of the causes of impairment:

Table A - Receiving Water Status Summaries

Segment	Segment Name	Segment Summary
041001[1]	Lake Pontchartrain: West of Highway 11 Bridge (Estuarine)	Pathogen Indicators, Dissolved Copper (Listed by EPA. LDEQ does not agree that the subsegment is impaired for this parameter.)
041302[2]	Lake Pontchartrain Drainage Canals, Jefferson and Orleans Parishes (Estuarine)	Pathogen Indicators

[1]The impairments that are listed in the column titled "Segment Summary" are the impairments that are listed on the 2004 303(d) List of Impaired Water Bodies: Including EPA's Additions. TMDL reports are maintained and regularly updated on the LDEQ web site at http://www.deq.louisiana.gov/portal/tabid/1563/Default.aspx. Permittees should check the web site frequently to determine the final TMDL status of this subsegment and make appropriate adjustments to incorporate the requirements of any TMDL into the SWMP.

[2]The impairments that are listed in the column titled "Segment Summary" are the impairments that are listed on the 2004 303(d) List of Impaired Water Bodies: Including EPA's Additions. TMDL reports are maintained and regularly updated on the LDEQ web site at http://www.deq.louisiana.gov/portal/tabid/1563/Default.aspx. Permittees should check the web site frequently to determine the final TMDL status of this subsegment and make appropriate adjustments to incorporate the requirements of any TMDL into the SWMP.

IV DISCHARGES TO 303(d) LISTED IMPAIRED WATER BODIES

The following basin subsegment numbers are 303(d) listed impaired water bodies:*

Basin Subsegment #	Suspected Causes of Impairment
041001	Pathogen Indicators, Dissolved Copper (Listed by the EPA)
041302	Pathogen Indicators

*The impairments that are listed in the column titled "Suspected Causes of Impairment" are the impairments that are listed on the 2004 303(d) List of Impaired Water Bodies: Including EPA's Additions. The List is available on the LDEQ website at http://www.deq.louisiana.gov/portal/tabid/130/Default.aspx.

Basin subsegment numbers 041001 and 041302 occur in the Lake Pontchartrain Basin. The LDEQ will calculate TMDLs for Pathogen Indicators for these two basin subsegments. The EPA will calculate TMDLs for Dissolved Copper for basin subsegment 041001. LDEQ and EPA have agreed on a Target Completion Date for setting Total Maximum Daily Loads (TMDLs) in the Lake Pontchartrain Basin. That date is March 31, 2011.

TMDLs are water quality assessments that determine the source or sources of pollutants of concern for a particular waterbody, consider the maximum amount of pollutants the waterbody can assimilate, and then allocate to each source a maximum quantity of each pollutant of concern that it is allowed to discharge (i.e., a "wasteload allocation").

As each waterbody and its associated causes of impairment are assessed, a determination will be made to remove any parameters that are determined not to be causes of impairment; to perform further studies if necessary; to delist any basin subsegments that are determined to be meeting

State water quality standards; and to set appropriate parameter-specific TMDLs for all basin subsegments determined not to be meeting State water quality standards. This permit may be reopened in accordance with Part III of the Fact Sheet in order to maintain applicable water quality standards for each waterbody if TMDLs indicate such a need.

The permittee must document in its SWMP how the BMPs and other controls implemented in its SWMP will control the discharge of any pollutant(s) of concern (POCs) for discharges into a receiving water which has been listed on the Clean Water Act 303(d) list of impaired waters. If a TMDL has been approved for a waterbody, the permittee will be required to describe how its SWMP is consistent with any TMDL requirements applicable to MS4 discharges into basin subsegments where TMDLs have been established.

For the basin subsegment numbers that receive storm water runoff from the regulated MS4s within **Orleans Parish and are listed on the most recent EPA-approved 303(d) list,** the permittees' SWMP must address any impairments that have been identified as related to *"Discharges from Municipal Separate Storm Sewer Systems"* or *"storm sewers"*. If a TMDL allocation has been assigned for specific pollutants that are identified as impairments related to discharges from regulated MS4s, then the permittees must modify the storm water management program to implement the TMDL within six months of the TMDL's approval or as otherwise specified in the TMDL. If a TMDL has not yet been approved for a 303(d) listed basin subsegment number that receives storm water runoff from the regulated MS4s within Orleans Parish, and *Discharges from Municipal Separate Storm Sewer Systems"* or *"storm sewers"* have been identified as the source of pollutants causing the impairment(s), then the permittees must describe how the BMPs and other control(s) selected for its SWMP will minimize, to the MEP, the discharge of those pollutants from the permitted MS4s.

On March 31, 2005, the EPA approved the Louisiana Category 5 Final 2002 Integrated Report and the Category 5 Final 2004 Integrated Report with additions made by the EPA. Both lists have been complied into one list of 303(d) listed impaired water bodies that required the development of TMDLs. That compilation of the current and complete EPA-approved 2002 and 2004 303(d) lists is titled "2004 303(d) List of Impaired Waters: Including EPA's Additions" and is available on the LDEQ website at http://www.deq.louisiana.gov/portal/tabid/130/Default.aspx. That list is periodically updated. The permittees should review the list periodically to keep informed of changes to the list and the establishment of TMDLs for listed impairments.

The permittees' SWMP currently consists of many activities and measures to control the basic classes of pollutants that cause water quality impairments. A brief synopsis of just some of the many activities that are conducted by the permittees to fulfill permit requirements include:

1. Structural Controls and Storm Water Collection System Operation – The permittees perform routine and as-needed inspections, maintenance and repair of culvert pipes, drainage canals, storm water catch basisn, drop inlets, drainage manholes and drainage lines. The permittees have established a program to maintain the structural integrity and hydraulic efficiency of the storm water collection system by: cleaning and flushing storm drain pipes and catch basins; clearing and snagging of canal and ditch banks; excavation, dredging and mowing of canals and ditches; removal of debris and obstructions, and erosion control and bank stabilization along canals and ditches. Rip-rap levee facing is currently used in high erosion areas along the Mississippi River levee to prevent stream bank erosion from high velocity flow

conditions. Sea wall segments along the south shore of Lake Pontchartrain at Lakeshore Drive are maintained to limit shoreline erosion and bike paths installed along Lakeshore Drive minimize erosion by absorbing wave energy. Accumulations of leaves, debris and refuse on or near catch basins are removed to prevent entrance into the MS4 and drainage system components determined to be damaged or otherwise blocked are repaired or cleared to reestablish proper function. Floodgate and flood control valves are routinely inspected to ensure proper function and are operated to prevent pollutant entry into storm water. Bar screens at the pumping stations are cleaned regularly and the debris collected from the screens is disposed of as solid waste.

2. Areas of New Development and Significant Re-Development - A post-construction storm water management program has been established to minimize storm water runoff from construction sites and to minimize erosion from construction sites. Permittees require owners/developers of construction sites to have a written site plan, erosion and sediment control plan, and a storm water pollution prevention plan detailing best management practices prior to beginning construction activities. LDOTD installs temporary erosion control features as described in Standard Plan EC-01 at its construction sites and maintenance projects to minimize the discharge of pollutants from construction related activities.

3. Roadways - LDOTD construction inspectors routinely inspect erosion control measures at construction sites to ensure their effectiveness. Bare soil at construction sites is vegetated as quickly as possible to minimize erosion from those sites. Litter crews (consisting of Streets & Drainage employees; local, state, and federal prison crews and parolees; and community service program participants) collect litter throughout the year to keep trash and debris from entering the storm sewer system during rain events. Citizen participation in Adopt-A-Road program for beautification of stretches of roadway has regular litter collection events. District maintenance forces collect drift material and debris that accumulates on bridge piers and pilings to enhance water quality. Other LDOTD storm water pollution prevention activities include cleaning and repairing drain structures, servicing litter barrels, landscape maintenance, and street sweeping. The City of New Orleans has a litter collection program and a street sweeping program to remove trash and minimize sediment loading from public streets. PONO has grounds keeping and roadway maintenance crews whose members are trained to identify sources of pollution and to act to minimize the discharge of pollutants while performing construction and maintenance activities. OLD periodically conducts street sweeping to remove sediment and litter from the roadways. Jefferson Parish performs routine maintenance and as-needed cleanings of drop inlets and catch basins, sweeps major traffic thoroughfares, routinely picks up trash, and performs concentrated cleanup efforts after Mardi Gras and St. Patrick's Day parades.

4. Flood Control Projects - The permittee has established a maintenance program to remove trees, underbrush and debris along canals; to clear and snag canal and ditch banks; excavate, dredge and mow canals and ditches; remove debris and obstructions from canals and ditches. Building regulations include no net loss of flood storage volume within the floodplain. Regulations require preparation of a drainage impact study for new developments which has resulted in a significant increase in the number of storm water detention areas or facilities that reduce post-development discharge rates, reduce downstream channel velocities and function as sediment basins both during the construction activities and post-construction. LDOTD has a procedure in place to assess the impacts of flood control devices on storm water discharges and addresses pollution prevention and pollutant removal practices to minimize the discharges of pollutants in storm water runoff.

5. Pesticide, Herbicide and Fertilizer Applications - The permittees conduct maintenance of green areas by mowing where possible to limit the use of pesticides, herbicides and fertilizers. Aquatic-safe herbicides are applied to tree stumps to prevent regrowth and to control the growth of weeds and broadleafs along cleared canals. Only applicators certified by the Louisiana Department of Agriculture and Forestry are approved to apply pesticides, herbicides and fertilizers on public property. The public education program (see item #10 below) encourages the proper use, recycling, and disposal of pesticides, herbicides, and fertilizers. During a given budget year, the City of New Orleans applies low concentrations of herbicides to approximately 25% of the total acreage of city medians to slow the growth of turf grasses. LDOTD does not use pesticides and fertilizers as part of its roadside vegetation management program. Each LDOTD highway district has a specialist that is certified and licensed by LDAF to coordinate all herbicide application within his district. The district herbicide applicators are trained and required to take refresher courses at regular intervals. Training includes types of chemicals, application rates and techniques, equipment, public relations, safety, emergency procedures, and the proper handling and disposal of chemical wastes. OLD trained and certified personnel apply a fertilizer mixture of 1 part ammonia to 150 parts of water to new grass planting sites along Lakeshore Drive. The ammonia is secured in an area where it is protected from exposure to storm water and unauthorized access. LDAF certified commercial applicators apply pesticides to OLD structures. OLD neither stores nor applies pesticides.

6. Illicit Discharges and Improper Disposal – The S&WB is undertaking a multi-year program to identify and address deficiencies in its wastewater collection system in order to minimize unauthorized discharges from the East Bank collection system and to ensure that the collection system has adequate capacity to convey peak flows to the East Bank Wastewater Treatment Plant. After rainfall events, several departments are called upon to remove debris off the bar screens. The floatable debris is placed into trucks and transported off-site for disposal as solid waste. During the period May 1, 2004 to April 30, 2005, the S&WB removed 660.36 tons of floatables from pumping station screens. The S&WB conducts inspections to identify and eliminate sources of illicit discharges and illegally disposed materials. They are in the process of implementing a more stringent program. The City of New Orleans collects and disposes of garbage, and oversees litter control activities in New Orleans. One of the activities that it conducts is a neighborhood cleanup event for local volunteers. The City of New Orleans has a litter collection program; a street sweeping program to remove trash and minimize sediment loading from public streets; and a recycle/disposal program to facilitate the proper disposal of used motor vehicle fluids and household hazardous wastes. The City has drop off locations where citizens can drop off used tires for proper disposal. PONO disposes of vehicle fluids by contract with a qualified waste disposal company. LDOTD has a litter program in place to reduce the introduction of floatables into storm water. The permittee's dry weather screening program and wet weather screening program are used to identify illicit point source discharges into the MS4, to cease and/or mitigate illicit discharges, and to notify other regulatory agencies as necessary. A program has been established to respond to all complaints and reports of illicit discharges into the MS4. Components of the public education program (see item #10 below) focus on preventing illicit discharges and improper disposal of chemicals by educating employees and citizens on how waste disposal practices and illicit discharges impact storm water pollution and water quality. Jefferson Parish has implemented a program to rehabilitate gravity sewers between 6" and 60", to identify and correct sanitary sewer overflows, and to identify sources of inflow and infiltration into the sanitary sewer system. Jefferson Parish has a program

to reduce floatables and they operate two used motor vehicle fluid recycling centers, one on each side of the river. The recycling centers collect a variety of items including waste oil, antifreeze, gasoline, automotive batteries, and tires. Jefferson Parish has found local organizations that accept latex paint for reuse, wastes containing recyclable mercury, and various other household hazardous wastes. Citizens are referred to these organizations and the LDAF to recycle pesticides and herbicides. Floatable quantities were recorded for the Bonnabel and Suburban Pumping Stations located on the East Bank and for the Planters and Harvey Pumping Stations located on the West Bank. Jefferson Parish has an active Storm Drain Marking Program in which they affix urethane coated plastic drain markers to drop inlets and catch basins.

7. **Spill Prevention and Response** - The permittee has developed a program to prevent/respond/control chemical spills to prevent storm water contamination. Reports of spills are received either from the S&WB emergency complaints phone center, from the New Orleans Fire Department Dispatcher, or from private individuals. Spills are investigated immediately by employees who have received Hazwoper Training. If the responsible party is identified they are asked to immediately clean up the spill. The S&WB will contract with an environmental clean up contractor if the responsible party does not clean up the spill. The Spill Prevention, Control and Countermeasure (SPCC) plans of industrial facilities are examined during the inspection of industrial facilities. PONO provides support services and traffic control support to LDEQ and the LSP who are the lead agencies in responding to spills. PONO has updated SPCs for each of their maintenance facilities in accordance with prevailing regulatory requirements. Many components of the public education and pollution prevention programs (see item #10 below) should directly have a positive impact on minimizing spills and facilitating a speedy response to spill events. LDOTD assists the Louisiana State Police and LDEQ in spill prevention and response by providing absorptive, non skid material for the clean up activities and assists in public safety activities during clean ups.

8. **Industrial and High Risk Runoff** – The S&WB has identified facilities subject to the Industrial and High Risk Inspection Program and the Industrial and High Risk Monitoring Program. Facilities that are visited during Pretreatment inspections are informed of their requirements under this program. Jefferson Parish maintains a list of facilities subject to the Industrial and High Risk Monitoring Program, a list of facilities subject to the Industrial and High Risk Inspection Program, and a list of facilities that have requested an exemption from monitoring based on a "no Exposure" certification.

9. **Construction Site Runoff** – Beginning with the next permit cycle the S&WB will inspect construction sites and check all paperwork for completeness (i.e., NOI, SWPPP, etc.), and inspect the BMPS and determine if waste materials are properly stored and disposed of. Jefferson Parish conducted inspections to check paperwork for completeness, the use of BMPs, and the adequate storage and disposal of waste. PONO ensures that all construction activities that occur on PONO properties are permitted according to LPDES regulations and that the sites are in compliance with permit requirements. Permittees ensure that all construction activities are in compliance with LPDES regulations and that activities are designed to minimize the discharge of pollutants from construction related activities. LDOTD obtains LPDES permits for all construction activities, implements a site-specific storm water pollution prevention plan as required by the permit, installs and maintains erosion control structures, and stabilizes the area when construction is complete. LDOTD personnel participate in storm water workshops and conferences when available.

10. Public Education - The permittees have developed programs to educate employees and citizens (including students at schools) how waste disposal practices and illicit discharges contribute to storm water pollution and degrade water quality. Pollution prevention education encourages proper use, recycling and disposal of household hazardous wastes, floatables, used oil, pesticides and fertilizers, etc. The permittees sponsor, promote and participate in the City of New Orleans Earth Day, the Audubon Zoo's Earth Fest and the Sewer Science Program (in conjunction with WEF, LWEA, and Jefferson Parish). The S&WB also conducted numerous tours for the public and for school groups at the Orpheum St. Drainage Pumping Station (D.P.S. #6). The S&WB's Department of Environmental Affairs promotes the correct disposal of pesticides at numerous festivals that the Department participates in. The S&WB has published materials related to the disposal of hazardous waste materials. The City of New Orleans has published the recycle New Orleans directory, which provides contact information of local recyclers and waste collection agencies. The importance of recycling is promoted at some of New Orleans' signature events such as Mardi Gras, Earth Day, New Orleans Jazz and Heritage Festival, and the French Quarter Festival. Radio spots and a weekly program on access television help to reinforce the message that carelessly discarded trash does not belong on the streets of New Orleans. Educational displays are set up at monthly community forums and workshops in order to get educational material to the public. Public involvement/participation activities will encourage the public to participate in developing and implementing the storm water management program. The New Orleans Department of Sanitation currently has a contract with Sardie and Associates to promote educational programs to the public schools and the citizen of New Orleans regarding recycling and litter issues. Jefferson Parish Department of Environmental Affairs had educational booths at various festivals including the Senior Citizen's Expo, Le Fete d'Ecologie, the local Arbor Day celebration and Audubon Zoo's Earth Fest. At all of these booths the Enviroscape Stormwater module was used to demonstrate how urban storm water becomes polluted and what happens to the polluted runoff. The Enviroscape Stormwater module was demonstrated at many local and middle schools. Jefferson Parish also conducted Sewer Science Program workshops to educate local high school students about water quality monitoring and wastewater treatment processes. The Department of Environmental Affairs helped coordinate, organize and sponsor two community litter pick up events. LDOTD erects signs along state highways informing the traveling public of the legal prohibition of littering and the monetary fines for each offense. Anti-litter bumper stickers are placed on LDOTD vehicles and the Tourist Information Centers across the state distribute pamphlets to educate the public about issues related to storm water.

11. Monitoring Programs -

a. Dry weather screening program - The S&WB inspects and monitors during low or normal water level conditions in an attempt to identify illicit discharges. PONO maintenance crews regularly inspect and monitor PONO facilities during both dry and wet weather conditions to identify illicit or improper discharges. Jefferson Parish screens commercial areas, industrial areas, and residential areas to identify sources of illicit discharges.

b. Wet weather screening program - The S&WB inspects and monitors during high and flowing water levels in an attempt to identify illicit discharges. All pertinent data for the current reporting period were lost, destroyed or misplaced during Hurricane Katrina and Hurricane Rita. PONO maintenance crews regularly inspect and monitor PONO facilities during both dry and

wet weather conditions to identify illicit or improper discharges. Jefferson Parish screens commercial areas, industrial areas, and residential areas to identify sources of illicit discharges.

c. Industrial and high risk runoff monitoring program - The S&WB reviews analytical monitoring results of NPDES/LPDES/LWDPS permit holders to identify problem areas. Jefferson Parish surveys potential IH&R sites to interview personnel and monitor material storage arrangements to identify areas exposed to pollutants that might contaminate storm water.

12. Pollution Prevention/Good Housekeeping Practices for Municipal Operations – Many Orleans Parish and Jefferson Parish facilities, including wastewater treatment plants, water treatment plants, trash drop off and recycling centers, landfills, drainage pump stations, and vehicle maintenance facilities have Spill Prevention, Control and Countermeasures (SPCC) Plans and Storm Water Pollution Prevention Plans (SWPPP). The MS4s have procedures in place for reporting spills and responding to reported spills and they have a contract with an Environmental Response Contractor to allow for immediate containment and cleanup of large spills. PONO has updated SPCs for each of their maintenance facilities in accordance with prevailing regulatory requirements. All LDOTD maintenance units located within LDOTD District 02 already have formulated and implemented a SWPPP for their maintenance units. The current permit did not include this control measure as a permit condition, and in general, the permittees SWMP does not currently address this control measure; however, in order to consistently regulate both Phase I and Phase II municipalities, the renewal permit will include the requirement that the permittees include this control measure in their SWMP. BMPs shall be developed for this control measure and the SWMP updated and implemented **no later than one year from the effective date of the final permit**.

Each permittee must:

(1) Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Each permittee's program must address maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants from being discharged to the MS4;

(2) Using training materials that are available from EPA, LDEQ, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. Each permittee's program must address controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations;

(3) Develop and implement procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris),

(4) Develop and implement procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices; and

(5) Include operation and maintenance as an integral component of all storm water management programs. This measure is intended to improve the efficiency of these programs and may require new programs or procedures.

In accordance with EPA's Storm Water Phase II Final Rule and EPA's 8/1/96 policy "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits," each permittee shall develop and implement Measureable Goals to assess the effectiveness of the BMPs used to satisfy the requirements of the Control Measures identified in Part II.A.1-12. Measurable Goals shall include months and years in which actions will be undertaken, including interim milestones and the frequency of the actions. Additional program development resources are available through the EPA web site at http://cfpub.epa.gov/npdes/stormwatermonth.cfm. Guidance on Minimum Control Measures and Measurable Goals and a menu of BMPs can be accessed from the "Publications" link on EPA's main storm water program page which is located at http://www.epa.gov/npdes/stormwater. Measurable Goals shall be developed and implemented **no later than one year from the effective date of the final permit**, for the BMPs identified in the SWMP and used to satisfy the requirements of the above-listed 12 Minimum Control Measures.

Implementation of the storm water management program elements discussed above, combined with eligibility conditions in Permit Part I.B.1, monitoring requirements under Part V of the permit for most 303(d) parameters of concern (e.g., TSS, BOD, nutrients, and pathogens), and the Part II permit requirement for describing how the storm water management program addresses 303(d) pollutants of concern, will provide protection for local water quality while TMDLs are being developed and EPA reviews proposed impairment de-listings.

V. MONITORING AND REPORTING REQUIREMENTS

The permitting authority reassessed the need for including Trivalent Chromium (Cr III) and Hexavalent Chromium (Cr VI) as monitoring requirements in the renewal permit. The original permit included Cr III and Cr VI as a monitoring parameter for each of the five representative outfalls to gather data to assess possible toxicity of storm water discharges to receiving streams. Discharge Monitoring Reports (DMRs) submitted by the permittees were reviewed for the three most recent reporting years.

Trivalent Chromium (Cr III)

State Water Quality Criteria for Trivalent Chromium

Freshwater		Marine Water	
Acute	*Chronic*	*Acute*	*Chronic*
310 µg/l	103 µg/l	515 µg/l	103 µg/l

The Cr III values that have been reported on the DMRs submitted by the permittees ranged from 0 µg/l to 40 µg/l, which were all well below both the criteria established in the state water quality standards for both acute toxicity and chronic toxicity.

TRIVALENT CHROMIUM VALUES REPORTED ON DMRs

DMR Period	*Value Reported on DMRs*				
	Outfall 001S	*Outfall 002S*	*Outfall 003S*	*Outfall 004S*	*Outfall 005S*
11/1/03-4/30/04	0 µg/l	0 µg/l	0 µg/l	0 µg/l	0 µg/l
5/11/03-10/31/03	N/A	N/A	N/A	N/A	N/A
5/1/02-10/31/02	3.8 µg/l	40.0 µg/l	1.4 µg/l	3.4 µg/l	0.3 µg/l
11/1/02-4/30/03	0 µg/l	0 µg/l	0 µg/l	0.8 µg/l	1.0 µg/l
5/1/01-10/31/01	1.4 µg/l	1.0 µg/l	0.8 µg/l	2.2 µg/l	1.8 µg/l
11/1/01-4/30/02	1.5 µg/l	1.4 µg/l	0.8 µg/l	2.6 µg/l	2.6 µg/l

Based on these findings, the monitoring requirement for Cr III was removed from the renewal permit.

Hexavalent Chromium (Cr VI)

State Water Quality Criteria for Hexavalent Chromium

Freshwater		Marine Water	
Acute	*Chronic*	*Acute*	*Chronic*
16 µg/l	11 µg/l	1.10 mg/l	50 µg/l

A DMR review revealed that although the Cr VI values reported are generally below both the acute toxicity criteria and the chronic toxicity criteria, an occasional monitoring event resulted in Cr VI values that exceeded both the acute toxicity criteria and the chronic toxicity criteria.

HEXAVALENT CHROMIUM VALUES REPORTED ON DMRs

DMR Period	*Value Reported on DMRs*				
	Outfall 001S	*Outfall 002S*	*Outfall 003S*	*Outfall 004S*	*Outfall 005S*
11/1/03-4/30/04	0 µg/l	0 µg/l	18.0 µg/l	4.0 µg/l	6. 0 µg/l
5/11/03-10/31/03	N/A	N/A	N/A	N/A	N/A
5/1/02-10/31/02	30.0 µg/l	0 µg/l	0 µg/l	19.0 µg/l	6.0 µg/l
11/1/02-4/30/03	0 µg/l	16.0 µg/l	6.0 µg/l	0 µg/l	0 µg/l
5/1/01-10/31/01	10.0 µg/l	10.0 µg/l	BMQL*	BMQL*	20.0 µg/l
11/1/01-4/30/02	BMQL*	BMQL*	BMQL*	BMQL*	BMQL*

BMQL = Below Minimum Quantification Level which means that the contaminant was not present at a concentration at which we can be confident that the numerical value is accurate.

Based on these findings, the monitoring requirement for Cr VI will remain in the renewal permit to assess the effectiveness of BMPs used by the permittees to minimize the discharge of Cr VI from the representative storm water outfalls.

Diazinon

The permitting authority has also reassessed the need for including the pesticide, Diazinon, as a monitoring parameter in the renewal permit.

According to the EPA "Interim Re-registration Eligibility Decision for Diazinon" which was published in the *Federal Register*, based on available usage information, for 1987 through 1997, 39% of the total annual domestic usage is allocated to outdoor residential uses by homeowners, 19% is allocated to lawn care operators, 11% is allocated to pest control operators, and 31% is allocated to agricultural uses.

The EPA and the registrants have agreed to phase out and cancel outdoor residential lawn and garden uses of the pesticide. Due to this agreement the production, formulation, and sales of Diazinon to retailers was completely ended during 2003. If retailers had any product remaining at the end of 2004, registrants were to buy back that product.

The original permit included Diazinon as a monitoring parameter for each of the five representative storm water outfalls to gather data to assess the effectiveness of the pesticide component of the public education program. Discharge Monitoring Reports (DMRs) submitted by the permittees were reviewed for the three most recent reporting years. Those DMRs report that Diazinon was detected in one discharge event from one storm water outfall during the DMR review period. All other DMR values for all five representative outfalls were either reported as 0 µg/l or BMQL (below minimum quantification level).

The LDEQ has decided to remove Diazinon as a monitoring parameter in the renewal permit because the pesticide is no longer sold to retailers and is unavailable to the general public for outdoor residential lawn and garden uses.

DIAZINON VALUES REPORTED ON DMRs

DMR Period	*Value Reported on DMRs*				
	Outfall 001S	*Outfall 002S*	*Outfall 003S*	*Outfall 004S*	*Outfall 005S*
11/1/03-4/30/04	0 µg/l	0 µg/l	1.8 µg/l	0 µg/l	0 µg/l
5/11/03-10/31/03	N/A	N/A	N/A	N/A	N/A
5/1/02-10/31/02	0 µg/l	0 µg/l	0 µg/l	0 µg/l	0 µg/l
11/1/02-4/30/03	0 µg/l	0 µg/l	0 µg/l	0 µg/l	0 µg/l
5/1/01-10/31/01	BMQL*	BMQL*	BMQL*	BMQL*	BMQL*
11/1/01-4/30/02	0 µg/l	0 µg/l	BMQL*	BMQL*	BMQL*

BMQL = Below Minimum Quantification Level which means that the contaminant was not present at a concentration at which we can be confident that the numerical value is accurate.

VI. PERMIT REOPENER CLAUSE

This permit covers an existing source with discharges to 303(d) waterbodies for which TMDLs have not been completed. The permit may be reopened to incorporate the results of any total maximum daily load allocation that might later be approved for the receiving waterbodies.

VII PUBLIC NOTICE

The public notice describes the procedures for the formulation of final determination.

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at the Office's address which will be included in the public notice. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice will be published in:

A local newspaper of general circulation
LDEQ Permits Public Notice Mailing List
LDEQ Permits Public Web Page at www.deq.louisiana.gov/news/PubNotice/ .

In order to reach as many local residents of Orleans Parish who have been displaced from their homes by recent hurricanes, the Department will publish an additional notice in *The Advocate* that identifies this permit as well as other permits placed on public notice for the previous week for facilities located in Orleans Parish. The notice will clearly identify the electronic web link to view the public notices and will provide a telephone number that citizens can call to request additional information or to find out where documents may be reviewed locally.

VIII. APPENDIX A

Attached is the 1995 EPA fact sheet for the Orleans Parish MS4 permit (LAS000301), referred to here as Appendix A.

APPENDIX A
1995 EPA FACT SHEET

GP1316C

B

Advertising Order Number 5T-3319-NNLX
U.S. Environmental Protection Agency and
Louisiana Department of Environmental Quality
Joint Public Notice of Draft NPDES Permit(s) and
State Water Quality Certification

July 22, 1995

This is to give notice that the U.S. Environmental Protection Agency, Region 6, has formulated a Draft Permit for the following facility (facilities) under the National Pollutant Discharge Elimination System (NPDES). Development of the draft permit(s) was based on a preliminary staff review by EPA, Region 6, and consultation with the State of Louisiana. The State of Louisiana is currently reviewing the draft permit(s) for the purpose of certifying or denying certification of the permit(s). The permit(s) will become effective 30 days after the close of the comment period unless:

A. The State of Louisiana denies certification, or requests an extension for certification prior to that date.

B. Comments received by August 24, 1995, in accordance with §124.20, warrant a public notice of EPA's final permit decision.

C. A public hearing is held requiring delay of the effective date.

EPA's contact person for submitting written comments, requesting information regarding the draft permit, and/or obtaining copies of the permit and the Statement of Basis or Fact Sheet is:

Ms. Ellen Caldwell
Permits Branch (6W-PS)
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-7513

Additionally, the Department of Environmental Quality, State of Louisiana, gives notice that it has received the draft permit(s) for review for State water quality certification. Public comment is invited regarding the State's certification of the draft NPDES permit(s). Written comments must be submitted within ten (10) days of the date of publication of this notice. Additional information is on file in the Office of Water Resources, Department of Environmental Quality and may be inspected Monday through Friday between the hours of 8 a.m. and 4:30 p.m. Copies may be obtained upon payment of the cost incurred by the Office of Water Resources.

The State of Louisiana's contact person for submitting written comments on the certification of the permit is:

4

Assistant Secretary
Louisiana Department of
Environmental Quality
P.O. Box 82215
Baton Rouge, Louisiana 70884-2215

EPA's comments and public hearing procedures may be found at 40 CFR 124.10 and 124.12 (48 Federal Register 14264, April 1, 1983, as amended at 49 Federal Register 38051, September 26, 1984). The comment period during which written comments on the draft permit may be submitted extends for 30 days from the date of this Notice. During the comment period, any interested person may request a Public Hearing by filing a written request which must state the issues to be raised. A public hearing will be held when EPA finds a significant degree of public interest.

EPA will notify the applicant and each person who has submitted comments or requested notice of the final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke or reissue, or terminate a permit. Any person may request an Evidentiary Hearing on the Agency's final permit decision. However, the request must be submitted within 30 days of the date of the final permit decision and be in accordance with the requirements of 40 CAR 124.74. Any condition(s) contested in a request for an evidentiary hearing are granted on a New Source, New Discharger, or Recommencing Discharger, the applicant shall be without a permit.

Further information including the administrative record may be viewed at the above address between 8 a.m. and 4:30 p.m., Monday through Friday. It is recommended that you write or call to the contact above for an appointment, so the record(s) will be available at your convenience.

NPDES authorization to discharge to waters of the United States, Permit No. LAS000301

The permittees' mailing addresses are:

City of New Orleans
1300 Perdido Street
New Orleans, LA 70112

Jefferson Parish
1221 Elmwood Park Blvd. Suite 703
Harahan, LA 70123

Sewage and Water Board of New Orleans
625 St. Joseph Street
New Orleans, LA 70165

Louisiana Department of Transportation and Development - District 02
P.O. Box 9180
Bridge City, LA 70096-9180

Port of New Orleans
P.O. Box 60046 - WTC Building
New Orleans, LA 70160

Orleans Levee District
Lakefront Airport, Admin. Bldg., Suite 202
New Orleans, LA 70126

The discharges from this municipal separate storm sewer system are made into Lake Pontchatrain, Mississippi River and tributaries thereto which are waters of the United States classified for: primary contact recreation; secondary contact recreation; propagation of fish and wildlife; drinking water supply; and oyster propagation. The discharges are located on those waters within the corporate boundaries of the City of New Orleans, in Orleans Parish, Louisiana. A fact sheet is available. Under the standard industrial classification (SIC) code 9111, the applicant's activities are municipal storm sewer system operations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

July 6, 1995
FACT SHEET

for draft National Pollutant Discharge Elimination System (NPDES) Permit No. LAS000301, for the City of New Orleans Municipal Separate Storm Sewer System to discharge to waters of the United States.

1. **NOTICE OF INTENT TO ISSUE A PERMIT.** The Environmental Protection Agency (EPA) has made a tentative determination to issue a permit, after consultation with the State of Louisiana, for the discharge of storm water from the Municipal Separate Storm Sewer System (MS4) described in the application. Permit requirements are based on the Clean Water Act (33 U.S.C. 1251 *et seq.)*, hereafter referred to as the Act, and NPDES regulations (40 CFR 122 & 124).

2. **PERMITTING AUTHORITY.** The NPDES permitting authority is: U.S. Environmental Protection Agency, Region 6, Permits Branch, 1445 Ross Avenue, Dallas, Texas 75202-2733.

3. **APPLICANTS.** The six applicants are: City of New Orleans; Sewerage and Water Board of New Orleans; Louisiana Department of Transportation and Development-District 02; Jefferson Parish; Port of New Orleans; and Orleans Levee District. The applicants are to be commended for their consensus, cooperation, and partnership building efforts that were necessary to apply as coapplicants.

4. **PERMIT WRITER.** The permit writer is: Dorothy Crawford, Municipal Permits Section (6W-PM).

5. **DESCRIPTION OF THE MUNICIPAL SEPARATE STORM SEWER SYSTEM.** As authorized by Section 402(p) of the Act, this permit is being proposed on a system basis. This permit covers all areas within the corporate boundary of the City of New Orleans (hereafter, New Orleans) served by, or otherwise contributing to discharges from municipal separate storm sewers owned or operated by the applicants listed above.

6. **AUTHORIZED DISCHARGES.**

a. Discharges Authorized. This permit authorizes all existing or new storm water point source discharges to waters of the United States from the MS4, except as described in Section 6.b below.

b. Discharges not Authorized. The following discharges are not authorized by this permit. A point source operator discharging pollutants without an NPDES permit is liable for violating Section 301 of the Act. Federal regulation 40 CFR 122.21 requires any facility operator who discharges pollutants to apply for and obtain NPDES permit coverage. This permit does not preempt the statute and regulations, nor transfer these responsibilities and liabilities to the MS4 permittees.

i. Non-storm water. Non-storm water discharges are not authorized by this permit. The applicants are responsible to develop and implement a Storm Water Management Program (SWMP) that effectively prohibits non-storm water into the MS4, and reduces to the maximum extent practicable pollutants being discharged from the system. Certain categories of non-storm water discharges need not be addressed as illicit discharges by the permittees nor prohibited from entering the MS4, subject to the requirements of Part II.A.6.a of the permit. For each category the permittees describe as exempt from the prohibition of non-storm water discharge into the MS4, a determination must be made that the discharges are not reasonably expected to be significant sources of pollutants. This determination is based on either the nature of the discharges or the conditions placed on the discharges by the permittees. These exempt categories of non-storm water discharges, along with any relevant local controls, must be described in the SWMP. Potential exempt categories include those listed in 40 CFR 122.26(d)(2)(iv)(B)(1), and those determined by the permittee to be incidental. Permittees are required to prohibit any individual discharge determined to be contributing significant amounts of pollutants to the MS4, regardless of its' exempt category status.

ii. Discharges requiring separate NPDES permits. This permit does not authorize the discharge of process wastewater, non-process wastewater, or Storm Water Associated with Industrial Activity. These discharges must be authorized by, or have applied for, separate NPDES permits.

There are differences between the statutory requirements for MS4 and Storm Water Associated with Industrial Activity discharge permits. Section 402(p)(3)(B)(iii) of the Act requires an effective prohibition on non-storm water discharges to a MS4. Section 402(p)(3)(A) of the Act requires compliance with treatment technology for discharges of Storm Water Associated with Industrial Activity. Because of these difference, and the fact that the Act does not exempt Storm Water Associated with Industrial Activity from the requirement to obtain a separate NPDES permit, these storm water discharges can not be authorized by this permit and require a separate NPDES permit.

iii. Spills. This permit does not authorize discharges of material resulting from a spill. If discharges from a spill are necessary to prevent imminent threat to human life, personal injury, or severe property damage, the applicants have the responsibility to take (or insure the responsible party takes) *reasonable and prudent measures* to minimize the impact of discharges on human health and the environment.

Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act states that owner/operators, disposer/treater, and transporters of hazardous substances are liable for all costs and damages (including destruction of natural resources) resulting from a release of the substance. This permit does not preempt this statute, nor transfer these responsibilities and liabilities to the MS4 permittees.

7. **RECEIVING STREAM SEGMENTS AND DISCHARGE LOCATIONS.** The discharges from the MS4 are into Lake Pontchartrain Basin Segment Nos. 041001, 041002, 041301, 041302, and 041501 (estuarine waters); Mississippi River Basin Segment No. 070301; and tributaries thereto. The discharges are located on those waters in the City of New Orleans, in Orleans Parish, Louisiana. The designated uses of the receiving waters include: primary contact recreation; secondary contact recreation; propagation of fish and wildlife; drinking water supply; and oyster propagation. Lake Pontchartrain Basin Segments are considered water quality limited waterbodies. Segment 070301 is an effluent limited waterbody.

8. **EFFECTIVE DATES.** Compliance with permit conditions is required 30 days from the issuance of the permit, except: as specified in the Part III compliance schedules; and for SWMP conditions in Part II.A (see Section 15 of this fact sheet).

9. **PUBLIC NOTICE.** Upon publication of the public notice and this fact sheet, a 30 day public comment period shall begin. During this period, any interested persons may submit written comments on the draft permit, including the proposed SWMP, to the EPA point of contact listed below. Also during this period any person may request a public hearing to clarify issues involved in the permit decision. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

10. **EPA POINT OF CONTACT.** For additional information contact Ms. Ellen Caldwell at (214) 665-7513, Permits Branch (6W-PS), U.S. Environmental Protection Agency, 1445 Ross Ave, Dallas, Texas 75202-2733.

11. **BASIS FOR PERMIT CONDITIONS.**

a. Statutory basis for permit conditions. The conditions established by this permit are based on Section 402(p)(3)(B) of the Act which mandates that a permit for discharges from MS4s must: effectively prohibit the discharge of non-storm water to the MS4; and require controls to reduce pollutants in discharges from the MS4 to the maximum extent practicable including best management practices; control techniques, and system, design and engineering methods; and such other provisions determined to be appropriate. MS4s are not exempt from compliance with Water Quality Standards. Section 301(b)(1)(C) of the Act requiring that NPDES permits include limitations applies, including those limitations necessary to meet water quality standards. The intent of the permit conditions is to meet the statutory mandate of the Act.

As authorized by 40 CFR 122.44(k), the permit will be utilizing Best Management Practices, a comprehensive SWMP, as the mechanism to implement the statutory requirements. Section 402(p)(3)(B)(iii) of the Act clearly includes structural controls as a component of maximum extent practicable requirement. Region 6 has encouraged applicants to explore opportunities for pollution prevention measures, while reserving the more costly structural controls for higher priority watersheds, or where pollution prevention measures are unfeasible or ineffective.

b. Regulatory basis for permit conditions. As a result of the statutory requirements of the Act the EPA promulgated the MS4 Permit application regulations, 40 CFR 122.26(d). These regulations described the permit application requirements for operators of MS4s. The information in the application was utilized by Region 6 to develop the permit conditions and determine applicants status in relationship to these conditions.

c. Discharge goals. The following goals apply to discharges from MS4s and were considered in review of the SWMP and in preparation of the draft permit.

No discharge of toxics in toxic amounts. It is the National Policy that the discharge of toxics in toxic amounts be prohibited (Section 101(a)(3) of the Act). The Louisiana Water Quality Regulations (LAC 33:IX.1113.B.5) requires that "No substances shall be present in the waters of the state or the sediments underlying said water in quantities that alone or in combination will be toxic to human, plant, or animal life or significantly increase health risks due to exposure to the substances or consumption of contaminated fish or other aquatic life."

No discharge of pollutents in quantities that would cause a violation of State water quality standards. Section 301(b)(1)(C) of the Act and 40 CFR 122.44(d) require that NPDES permits include "...any more stringent limitations, including those necessary to meet water quality standards, treatment standards, or schedule of compliance, established pursuant to State law or regulations...".

No discharge of floatable debris, oils, scum, foam, or grease in other than trace amounts. The Louisiana Water Quality Regulations requires that "There shall be no substances present in concentrations sufficient to produce distinctly visible solids or scum..." (LAC 33:IX.1113.B.3); "Free or floating oil or grease shall not be present in quantities large enough to interfere with the designated water uses..." (1113.B.6); and "Foaming or frothing materials of a persistent nature are not permitted" (1113.B.7).

No discharge of non-storm water from the municipal separate storm sewer system, except in accordance with Part I.B.2. Permits issued to MS4s are specifically required by Section 402(p)(3)(B) of the Act to "...include a requirement to effectively prohibit non-storm water discharges into the storm sewers..." The regulation (40 CFR 122.26(d)(2)(iv)(B)(1)) allows the permittee to accept certain non-storm water discharges where they have not been identified as significant sources of pollutants.

No degradation or loss of State-designated beneficial uses of receiving waters as a result of storm water discharges from the municipal separate storm sewer (unless authorized by the State in accordance with the State's Antidegredation Policy). The State of Louisiana has adopted an Antidegradation Policy as part of their Water Quality Regulations (LAC 33:IX.1109.A.1) which provides for the maintenance of: existing instream water uses; and existing water quality levels where existing water quality exceeds the levels necessary to support uses (except where the State determines that lowering water quality is necessary to accommodate economic or social development, as long as the quality does not violate standards).

12. DISCHARGE LIMITATIONS. No numeric limitations are proposed in the permit at this time. In accordance with 40 CFR 122.44(k), Region 6 has required a series of Best Management Practices, in the form of a comprehensive SWMP, in lieu of numeric limitations. Numeric limitations will be included in the final permit if required by the State as a condition for certification of the permit under Section 401 of the Act.

13. SYSTEM DISCHARGE MONITORING DATA AND RECEIVING WATER ISSUES.

a. General. The New Orleans MS4 is a unique system. The system, though a separate storm sewer system, has a continuous flow of water caused by a combination of the area's high groundwater table and excess rainfall patterns. The MS4 is intentionally kept "wet" to assure that excess groundwater flow does not occur. Pumping of the excess groundwater would increase the threat of subsidence in the area. This continuous flow phenomenon creates problems for the illicit detection portion of the SWMP and it requires creative alternative approaches for other aspects of the SWMP. The phenomenon reduces pollutant loadings to the more sensitive Lake Pontchartrain by diverting dry weather flows to the Mississippi River, a waterbody more capable of accepting these loadings. Inherent in the pumping of the storm sewer system's discharges is the resulting reduction in the discharge of Total Suspended Solids due to deposition that occurs with velocity changes in the forebay of the pumping stations.

b. Receiving water quality. One of the more serious problem facing Lake Pontchartrain is the bacteriologic pathogens contaminants indicated by fecal coliform levels. Oyster harvesting has been impacted in the past. Some of these elevated fecal coliform levels may be attributable to other manmade or natural causes besides urban runoff. Other major pollutants from the MS4 discharges that are impacting Lake Pontchartrain are: phosphate; heavy metals; petroleum hydrocarbons; and nitrate ammonia. Lake Pontchartrain does not qualify for the National Clean Lakes Program because it is tidally influenced.

Heavy metal lead contamination has been found in the sediments within the Bonnet Carre Spillway (according to a George Flowers Tulane University study). Sediments quality is an indicator of overall environmental quality since they influence the fate of many aquatic organisms. They provide benthic and pelagic communities habitats for spawning, incubation, rearing, and other essential biological processes. Sediments tend to consolidate contaminant concentrations and may represent long-term sources of contamination. Many toxic contaminants found in only trace amounts in the water column can accumulate to elevated levels in sediments. Sediments typically result from weathering and contain metals leached from the parent rock. This natural portion of sediment metal is generally chemically bound and immobile. However the manmade portion is a particular concern because it is more loosely bound, more easily released to the water when sediments are disturbed, and more available to aquatic organisms.

c. Monitoring data. The table below is a summary of some of the applicants' representative monitoring data collected during the application process. The applicants sampled 30 times, from 5 locations which were selected to provide uniform upstream drainage area land uses (e.g., residential-18, industrial-6, commercial-6 samples). Parameters sampled included conventional, non-conventional, organic toxics, and other toxic pollutants. Region 6 reviewed this information during the permitting process. Monitoring data was intended to be used by the applicants to assist in their determination of appropriate storm water management practices. The Region used the data to review the application and to determine pollutants of concern discharging from the MS4. In the table below the column titled "MS4 Annual Loading" shows the estimated amount (by weight) of the listed parameters currently being discharged from the New Orleans storm sewer system in an average year. The event mean concentration columns are the average parameter concentration in storm water discharges from the different land use types.

Application Representative Monitoring Data

Parameter	MS4 Annual Loading (weight in pounds)	Residential [1,3] (mg/l)	Commercial [1] (mg/l)	Industrial [1] (mg/l)
Biochemical Oxygen Demand (BOD_5)	5,829,951	16.9	15.5	11
Chemical Oxygen Demand (COD)	22,628,384	49.6	108.7	90
Total Suspended Solids (TSS)	17,199,378	41.6	78.7	52
Total Dissolved Solids (TDS)	91,256,547	88.6	103.2	1123.0
Nitrate + Nitrite [2]	10,543,492	3.7	9.6	1.9
Ammonia + Organic Nitrogen (TKN) [2]	1,338,407	2.8	2.8	8.3
Total Phosphorus	7,019,161	23.7	0.4	7.1
Dissolved Phosphorus	885,379	2.9	0.1	1.5
Total Cadmium	248	0.0005	0.001	0.0013
Total Copper	9,960	0.025	0.022	0.04
Total Lead	14,279	0.035	0.038	0.058
Total Zinc	61,228	0.144	0.281	0.203
Oil & Grease	-	5.2	6.3	4
Fecal Coliform (No./100ml)	-	487	575	125
Fecal Streptococcus (No./100ml)	-	311	410	52

1 EMC = event mean concentration.

2 The parameters Organic Nitrogen, Ammonia Nitrogen (NH4), Nitrate, and Nitrite were reported by permittee. Loadings and concentrations calculated by addition.

3 Residential EMC taken from Sept. 93 application (14 sample data).

d. Evaluation of Toxic Pollutants: The table below is a summary of the conversion of State Water Quality Standards Criteria for metals from dissolved to total form. A TSS of 27 mg/l was used in the conversion calculations (Lake Pontchartrain - "US COE Jefferson & Orleans Parishes Reconnaissance Study" July '92; Mississippi River - April 6, 1994 letter from LDEQ).

Water Quality Standards Numeric Criteria Conversion

Parameter	Acute Criteria						Chronic Criteria					
	Freshwater			Estuarine			Freshwater			Estuarine		
	Diss. µg/l	Ct/Cd	Total µg/l	Diss. µg/l	Ct/Cd	Total µg/l	Diss. µg/l	Ct/Cd	Total µg/l	Diss. µg/l	Ct/Cd	Total µg/l
Arsenic	360	2.17	781	69	1	69	190	2.17	412	36	1	36
Cadmium	23	3.61	83	46	1	46	0.9	3.61	3	10	1	10
Chromiu	1318	5.23	6,893	515	1	515	157	5.23	821	103	1	103
Copper	14	3.45	48	4.4	1.18	5	9.6	3.45	33	4.4	1.18	5
Lead	53	5.47	290	220	2.88	634	2.1	5.47	11	8.5	2.88	24
Mercury	2.4	2.83	7	2.1	1	2	0.012	2.83	0.03	0.025	1	.025
Nickel	1067	3.02	3,222	75	1	75	119	3.02	359	8.3	1	8
Zinc	88	4.36	384	85	2.11	200	80	4.36	349	86	2.11	181

The table below is a summary of the comparison of the application end-of-pipe discharge monitoring data with the converted instream State Criteria. Since no State Implementation Strategy exists for high flow (wet weather) conditions, and variables (such as dilution) can not be accounted for when reviewing the State's Water Quality Standards Criteria, the comparison of instream Criteria to sampled MS4 end-of-pipe discharge concentrations only indicates potential areas of concern for the MS4 discharges, NOT violations of Water Quality Standards. The parameters Zinc, Copper, Lead, Cadmium, Nickel, & Chromium are considered toxic pollutants of concern for the MS4 discharges due to the number and levels detected, and the Bonnet Carre Spillway sediment study described above. Silver was detected in 21 of the 30 samples, but there is no State Water Quality Criteria for Silver.

Toxic Monitoring Data Evaluation

Parameter	No. of Samples with Parameter Detected			No. of Samples > Criteria	
	Res. (18 samples)	Comm. (6 samples)	Ind. (6 samples)	Acute	Chronic
Arsenic	13	6	6	0	0
Cadmium	15	6	6	0	0
Chromium	16	6	6	0	0
Copper	16	5	4	25	25
Lead	18	6	6	0	19
Mercury	1	2	0	2	3
Nickel	18	6	6	2	13
Zinc	18	6	6	11	11

e. Evaluation of Conventional Pollutants: The State Water Quality Standards do not contain conventional parameters criteria for urban runoff. Therefore, Region 6 compared the applicants' monitoring data to the National Urban Runoff Program (NURP) monitoring data. This NURP data (shown in the table below) was collected in the 1980's from 28 sites across the country and indicates the level of pollutants typically found in urban runoff. The pollutant levels detected in the NURP study reflect the condition of urban runoff at the time, not a standard of quality or goal. Compared to the NURP data all the applicants' land use categories discharges contained excessive levels of Phosphorus (total and dissolved); Nitrogen (TKN, Nitrate, and Nitrite); and BOD_5. The parameter COD was detected at elevated levels in Commercial and Industrial areas discharges. TDS were at excessive levels in Industrial areas discharges.

NURP Monitoring Data Results [1]

Parameter	Urban Median [2]	Residential [2]	Commercial [2]	Nonurban [2]
Biochemical Oxygen Demand (BOD_5)	9	10	9.3	-
Chemical Oxygen Demand (COD)	65	73	57	40
Total Suspended Solids (TSS)	100	101	69	70
Nitrate + Nitrite	0.68	0.736	0.572	0.543
Ammonia + Organic Nitrogen (TKN)	1.50	1.90	1.179	0.965
Total Phosphorus	0.33	0.383	0.201	0.121
Dissolved Phosphorus	0.12	0.143	0.080	0.026
Total Copper	0.034	0.033	0.029	-
Total Lead	0.144	0.144	0.104	0.030
Total Zinc	0.160	0.135	0.226	0.195

[1] "Results of the Nationwide Urban Runoff Program, Volume 1- Final Report"; Recommended best description of urban runoff characteristics for planning purposes, Table 6-17 (Urban Median); Median EMCs for all sites by land use, Table 6-12 (Commercial, Residential, and Nonurban).

[2] mg/l, EMC = event mean concentration.

14. STORM WATER MANAGEMENT PROGRAM (SWMP). The SWMP submitted by the applicants was required by the regulations to contain program elements for each of the items in the table below.

Storm Water Management Program Elements

Required Program Element	Permit Parts	Regulatory References (40 CFR 122.26)
Structural Controls	II.A.1	(d)(2)(iv)(A)(1)
Areas of new development & redevelopment	II.A.2	(d)(2)(iv)(A)(2)
Roadways	II.A.3	(d)(2)(iv)(A)(3)
Flood Control Projects	II.A.4	(d)(2)(iv)(A)(4)
Pesticides, Herbicides, & Fertilizers Application	II.A.5, A.10.c	(d)(2)(iv)(A)(6)
Illicit Discharges and Improper Disposal	II.A.6, A.10.a-.b	(d)(2)(iv)(B)(1)-(3), (iv)(B)(7)
Spill Prevention and Response	II.A.7	(d)(2)(iv)(B)(4)
Industrial and High Risk Runoff	II.A.8, A.11.c	(d)(2)(iv)(C), (iv)(A)(5)
Construction Site Runoff	II.A.9	(d)(2)(iv)(D)
Public Education	II.A.10	(d)(2)(iv)(A)(6), (iv)(B)(5), (iv)(B)(6)
Monitoring Program	II.A.11, V	(d)(2)(iv)(B)(2), (iii), (iv)(A), (iv)(C)(2)

The regulations, 40 CFR 122.26(d)(2)(iv), authorizes separate proposed programs for co-permittees, and imposition of controls for different areas of the MS4 on a watershed, jurisdiction, or individual outfall basis. Due to differences in climate, topography, historical development patterns, legal authority, sensitivity of receiving waters, and many other factors, Region 6 believes some flexibility in prioritizing the scope and timing of individual program elements is appropriate. The standard of reducing the pollutants to the maximum extent practicable, is therefore applied to the SWMP as a whole, rather than to each individual program element. Region 6 believes this approach is in accordance with Section 402(p)(3)(B) of the Act and the intent of Congress. The applicants submitted two SWMPs in their Part 2 application. These two SWMPs are considered a single document and all references to the SWMP refer to this single document.

The following summarize the SWMP elements submitted by the applicants to satisfy the requirements. Where elements were deemed by the Region to require augmentation, or where significant permit compliance submittals were indicated in the SWMP, schedules were included in Part III of the permit. Dates contained in the Part III schedules were based on the assumption that the permit will have an effective date of September 1, 1995. The dates in the Part III schedules will be adjusted appropriately in the final permit if the permit's assumed effective date is delayed.

***a. Structural Controls:** The MS4 and any storm water structural controls shall be operated in manner to reduce the discharge of pollutants to the Maximum Extent Practicable.*

The Sewage and Water Board (S&WB) Drainage & Sewerage, and Network Departments will maintain the following system structures: canals, inlets and catch basins, piping over 36 inches. A compliance schedule was included in Part III of the permit for the revision of this maintenance program to incorporate the coapplicants' responsibilities for the portion of the MS4 over which they have operational control.

***b. Areas of New Development and Significant Redevelopment:** A comprehensive master planning process (or equivalent) to develop, implement, and enforce controls to minimize the discharge of pollutants from areas of new development and significant re-development after construction is completed.*

Compliance schedules were incorporated into Part III of the permit that require the applicants to develop and implement planning procedures to minimize post-construction pollutant loadings from developed and redeveloped sites. These planning procedures need to assure that post-construction water quality is addressed during a project's planning and design stage along with all the other more typical aspects of site planning, such as safety, convenience, public services, and quality of life. Planning procedures for post-construction water quality tend to fall into three non-exclusive categories: source controls; runoff controls; and treatment. In line with EPA's National Pollution Prevention Policy, Region 6 would encourage the adoption of source controls wherever possible. In areas where development is unlikely, the applicants should focus their attention on potential controls for redevelopment projects (e.g., modular pavement for remote parking areas when shopping center's parking areas are reconstructed or commercial parking areas are expanded; maintenance of existing vegetation; water quality inlets;...). Region 6 recommends the planning procedures include special considerations for environmentally sensitive areas, and be carefully considered, flexible, and specific.

Some examples of source controls include: maintenance of pre-development pollutant loadings; conservation of existing drainageways; numeric limit on percent of allowable impervious surface; use of modular or porous pavement; and emphasizing surface drainage patterns over subsurface drainage patterns. Wet basins, dry basins, man-made wetlands, infiltration devices, and retention of first flush are examples of runoff controls. In situations where source or runoff controls are infeasible, treatment of contaminated storm water runoff may be more appropriate. Treatment can include: screening for floatables; oil & grease separators; disinfection; and the use of flocculants.

***c. Roadways:** Public streets, roads, and highways shall be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities.*

The Mayor's office and the New Orleans Sanitation Department formed the Clean City Committee. One of this committee's function is to educate the private and public sectors on the proper disposal of refuse and prevention of litter. New Orleans has a street sweeping program. The application indicated New Orleans regularly flushes the streets in the French Quarter and Central Business District. Region 6 does not sanction the flushing of street debris into the MS4. If flushing continues, special considerations should be provided to prevent the contaminated water and litter from discharging to the MS4. A compliance schedule was included in the permit for the addition of the coapplicants' roadway maintenance programs (e.g., litter, sweeping).

***d. Flood Control Projects:** Flood control projects' impacts on water quality impacts shall be assessed. Evaluate the feasibility of retrofitting existing flood control devices to provide additional pollutant removal.*

S&WB is developing a process to evaluate flood control projects' impact on water quality. Compliance schedules were incorporated into Part III of the permit for the development and implementation of planning guidelines for these projects. The guidelines will address the projects' post-construction impact on receiving water. A schedule was also included for the evaluation of existing flood control devices (e.g. channels, basins, pumping stations) to determine if retrofitting the devices to provide additional pollutant removal is feasible. Examples of potential retrofitting options include: reducing the screen opening size on the pumping station intakes; removal of concrete lining in channels and basins; and increased wetland plantings in existing earthen basins and channels. Region 6 understands that flooding prevention is a high priority for New Orleans.

e. Pesticide, Herbicide, and Fertilizer Application: *Each permittee shall implement controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public property.*

A compliance schedule were incorporated into Part III of the permit for the implementation of a Pesticides, Herbicides, and Fertilizers Program. This program should include measures (e.g., training and certification requirements for permittees' employees and contractors) to promote the proper use, storage, and disposal of pesticides, herbicides, and fertilizers.

f. Illicit Discharges and Improper Disposal: *An ongoing program to detect and eliminate illicit discharges and improper disposal into the MS4. Non-storm water discharges shall be effectively prohibited. However, the permittee may allow certain non-storm water discharges as listed in 122.26(d)(2)(iv)(B)(1). The SWMP shall identify any allowed non-storm water discharges, along with any conditions placed on discharges.*

Part III of the permit contains a compliance schedule for the submission of the subject list of non-storm water discharges allowed or not allowed to discharge to the MS4 and reasons for these determinations.

Each permittee shall prevent (or require the operator of the sanitary sewer to eliminate) unpermitted discharges of dry and wet weather overflows from sanitary sewers into the MS4. Each permittee shall limit the infiltration of seepage from sanitary sewers into the MS4.

The S&WB Maintenance Department is responsible for the repair and replacement of the separate sanitary sewer system to minimize inflow and infiltration, and prevent overflow discharges into the MS4. S&WB plans to initiate a Sewerage System Evaluation Study (SSES) which will investigate 10% of the sanitary sewer system per year. This SSES will help identify which portions of the sanitary sewer system have inflow and excessive infiltration problems. When the applicants understand the condition of their sanitary sewer system they will be able to formulate a plan to address the problems and hopefully eliminate unpermitted discharges of raw sewage into New Orleans' storm sewer system.

New Orleans is currently involved in litigation concerning past effluent limitation violations at the POTW treatment plant. Occurrences of unpermitted discharges of raw wastewater from the sanitary sewer collection system (e.g., overflows) have also been incorporated into the action.

The discharge of floatables (e.g.: litter and other human generated solid refuse) into the MS4 shall be reduced.

The applicants have litter control programs as described above under Roadways. In addition, New Orleans has a curbside recycling program. New Orleans also encourages the use of drop off sites for recyclable materials including glass, aluminum, and paper. Due to the storm sewer system's unique collection and pumping system all storm water discharges are screened prior to pumping. These screens are cleaned several times per day during operation and are effective in preventing the discharge of oversized floatables. A notable amount of the storm water is collected by basins with grates that also helps to control floatables.

The discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal wastes into the MS4 shall be prohibited. The permittees shall ensure the implementation of programs to collect used motor vehicle fluids and household hazardous wastes for recycle, reuse, or proper disposal.

Household hazardous waste and used motor vehicle fluids are a fact of life in urbanized areas. The term used motor vehicle fluids includes oil, antifreeze, transmission oil, brake fluid, and other fluids that must be changed periodically. The term household hazardous waste is more enigmatic. Many common products purchased for use around the home contain hazardous and toxic substances. The products become household hazardous wastes when the consumer needs to dispose of the unused portions or residues. The average U.S. household generates more than 20 lbs. of household hazardous waste per year. As much as 100 lbs. can accumulate in the home until the residents move or clean. Some examples of these toxic wastes include: pesticides, herbicides, & fertilizers; oil-based or lead paints; solvents; batteries; and drain cleaners.

Either directly or indirectly, local governments typically provide for the collection of public wastes (e.g., sewage, garbage). These services are regarded as an inherent function of local government. Therefore, it is appropriate that local governments take a leadership role in ensuring residents have the opportunity to properly dispose of toxic wastes, such as household hazardous wastes and used motor vehicle fluids.

Storm water discharges from urban areas become contaminated with these wastes either by the public improperly disposing of the wastes directly into the system (e.g., inlets, street gutters), or by storm water coming in contact with areas where the wastes have been dumped by the public. A public survey was conducted in Jefferson Parish, Louisiana, by Joe Walker Research in June 1992. One of the issues investigated in the demographics portion of the survey was the disposal of liquid wastes into the storm sewer. While only 4% of the respondents admit to disposing of liquid wastes into the storm sewer, more than 26% either know someone or have seen someone who does. In addition, the EPA estimates that 40% of used motor fluids changed by non-commercial entities (80 mill. gals/yr.) are disposed of onto roads, driveways, or yards; or into storm sewers ("How to Set Up a Local Program to Recycle Used Oil" EPA/530-SW-89-039A). Other reports have estimated that 15% to 20% of household hazardous wastes end up in storm drains or runoff ("Final Plan and Environmental Impact Statement for the management of Small Quantities of Hazardous Waste in the Seattle-King County Region" 1990).

One of the ways local agencies and governments across the country have been addressing the issue of promoting the reuse, recycle, and proper disposal of these wastes has been collection events. In 1991, there were 802 household hazardous water collection programs in the United States ("Household Hazardous Waste Management - A Manual for One-Day Collection Programs" EPA530-R-92-026). The State of Texas reports they are aware of 42 different collection events held in Texas in 1994, and 28 collection events in the first half of 1995.

Collection events serve as important opportunities to reinforce public education. More than just the storm water system is impacted by improper disposal of these materials. The public also disposes of these wastes into municipal landfills, and wastewater treatment plants. The permittees are encouraged to investigate opportunities to involve local businesses and community groups as a means to control costs and foster more public involvement in preventing pollution related to these wastes. Wherever possible, Region 6 recommends the reuse or recycling of materials as a means to reduce: costs; the drain on natural resources for raw materials; the extra pollution associated with generating products from raw materials; and the need for disposal as a waste.

Region 6 considers collection events (or their equivalent) to be an appropriate Best Management Practice (BMP) for inclusion in the portion of the permittees' SWMP designed to address the issue of toxics and improperly disposed materials discharging into the storm sewer system (40 CFR 122.26(d)(2)(iv)(B)). Compliance schedules were included in Part III of the permit requiring the investigation, development and implementation of Used Motor Vehicle Fluids and Household Hazardous Waste Program(s). Region 6 believes the long term program(s) should include periodic collection events, continuous service, or equivalent services. Any program proposed should ensure a convenient publicly available service with operating hours that allow working people to participate (some long weekday hours, or weekends). The program could include private or public sector activities (e.g. automobile parts, discount stores with auto-centers accepting used oil).

Alternate BMPs were considered by the Region to address the issues of proper management and disposal of household hazardous wastes and used motor vehicle fluids. Regular curbside collection was an option reviewed but considered less desirable due to potential excessive cost and technical issues. Although an intensive public education program on these issues is strongly recommended Region 6 understands an education program alone will not resolve the public's problem of where to take the inevitable waste produced for reuse, recycle, or proper disposal. Since the collection event programs have been successfully promoted through out the country Region 6 considers them a realistic appropriate practice to address the issues.

Region 6 requests comments and suggestions from the permittees and the public on the proposed permit condition (Part III schedule for program(s) development and implementation) and any alternative practices or measures that might adequately address the issues of reuse, recycle, or proper disposal for household hazardous wastes and used motor vehicle fluids.

A program to locate and eliminate illicit discharges and improper disposal into the MS4 shall be implemented. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal. Follow-up activities to eliminate illicit discharges and improper disposal may be prioritized. This program shall establish priorities and schedules for screening the entire MS4 at least once per five years. Facility inspections may be carried out in conjunction with other permittee programs (e.g. pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but must include random inspections for facilities not normally visited by the permittee.

The New Orleans Office of Public Health and the S&WB Environmental Affairs Division are responsible for investigating sewerage leaks. Inspections for compliance with local, state and federal health and sanitary codes will be conducted by the New Orleans Office of Public Health through the Sanitary Services Department. The S&WB Environmental Affairs Division conducts smoke testing to investigate illicit discharges. Compliance schedules were included in Part III of the permit for the development and implementation of an Illicits Discharge Inspection Program. Program to include the types of facilities subject to the program; priorities for the inspections; inspection and enforcement procedures; and schedules (e.g., no. inspections/yr.). This program may be incorporated into existing New Orleans' site visitation programs (e.g., fire safety, pretreatment, health). Dry weather screening is discussed below.

g. Spill Prevention and Response: A program to prevent, contain, and respond to spills that may discharge into the MS4 shall be implemented. The spill response program may include a combination of spill response actions by the permittee, and legal requirements for private entities.

The Local Emergency Planning Commission in conjunction with the New Orleans Fire Department respond to emergencies involving chemical spills, hazardous fires, and explosions. The S&WB Environmental Affairs Division, New Orleans Drainage Dept., and LDOTD also have spill response procedures.

h. Industrial & High Risk Runoff: A program to identify and control pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the MS4 shall be implemented. The program shall include inspections, a monitoring program (described in Part II.A.11.c), and a list of industrial storm water sources discharging to the MS4 shall be maintained and update as necessary.

Compliance schedules were included in Part III of the permit requiring the applicants to develop an inspection program for the facilities subject to the Industrial and High Risk Inspection Program. The program should include: schedule (e.g., No. inspections/yr.); specific list of subject facilities (40 CFR 122.26(d)(2)(iv)(C)); priorities; and procedures (e.g., enforcement escalation process, required reinspection, checklists). This program may be incorporated into existing New Orleans' site visitation programs (e.g., fire safety, pretreatment, health).

i. Construction Site Runoff: A program to reduce the discharge of pollutants from constructions sites shall be implemented. This program to include: requirements for the use and maintenance of control measures to reduce pollutants discharged from construction sites; inspection of construction sites & enforcement of control measures requirements; appropriate education & training for construction site operators; and notification of appropriate building permit applicants of their responsibilities under the NPDES permitting program for construction site runoff.

City building permit applicants must provide proof of their coverage under the NPDES General Permit for Storm Water Discharges From Construction Sites, and site pollution prevention plan. Information sheets regarding the General Permit requirements are distributed. Compliance schedules are included in Part III for the development and implementation of a Construction Site Inspection Program. This program is to include: permittees' internal construction site inspector training requirements; inspector tools & procedures (e.g., checklists, reinspection of sites with significant non-compliance,...); inspection priorities (e.g., inspection of larger sites weekly,...); and enforcement procedures (e.g., fines, escalation to federal authorities). This program may be incorporated into existing New Orleans' construction site visitation programs.

***j. Public Education:** A public education program with the following elements shall be implemented: (a) a program to promote public reporting of illicit discharges or improper disposal; (b) a program to promote the proper use & disposal of used oil & household hazardous wastes; and (c) a program to promote the proper use & disposal of pesticides, herbicides, & fertilizers by the public.*

There are two hotline telephone numbers for the public to use to report sewer and drainage related complaints (e.g., illegal dumping, odors, unusual discharges) and spills. The applicants participate in a storm drain inlet stencilling campaign to prevent improper disposal. The applicants City-wide education program will include the following elements: the proper use of fertilizers, pesticides, herbicides, and other potentially harmful chemicals; general information on the MS4; litter; pet wastes; automobile use reduction.

***k. Monitoring Programs:** The following monitoring programs are in addition to Part V of the permit:*

Dry Weather Screening Program; Compliance schedules are included in Part III of the permit for the development and implementation of the program. The purpose of the program is to continue ongoing efforts to detect the presence of illicit connections and improper discharges to the MS4. Sample collection and analysis need not conform to 40 CFR 136, unless sampling is conducted to support possible legal action.

Wet Weather Screening Program; Compliance schedules are included in Part III of the permit for the development and implementation of the program. The purpose of the program is to detect areas of the MS4 that may be contributing excessive levels of pollutants to the MS4 by observation of the system during wet weather. Sampling is optional.

Industrial and High Risk Runoff Monitoring Program. Compliance schedules are included in Part III of the permit for the development and implementation of the program. The program should include: specific list of subject facilities (40 CFR 122.26(d)(2)(iv)(C)); exempt facilities (Alternative Certification permit Part II.A.11.c.2); parameters (40 CFR 122.26(d)(2)(iv)(C)(2)); frequency; and entity conducting monitoring.

15. STORM WATER MANAGEMENT PROGRAM COMPLIANCE. Compliance with Part II.A will be achieved by the implementation of the described activities of the various elements of the SWMP, as modified by compliance schedules contained in Part III. Permittees' must implement the SWMP (except as indicated Part III) within 90 days from permit issuance. At the end of the 90 days all the required support and initiation procedures for SWMP's elements should be established, and the elements' activities performed as described and scheduled. The schedules in Part III will take precedence in the case of any conflict between Part III and the SWMP. Permittees adherence to the SWMP, and Part III will be considered compliance with Part II.A.

16. ROLES AND RESPONSIBILITIES OF PERMITTEES. The regulation 40 CFR 122.26(d)(2)(vii) required the permittees to describe the roles and responsibilities of each entity applying for the permit to ensure effective coordination. Compliance schedules were included in Part III of the permit for the applicants to submit a plan for the roles and responsibilities of each of the permittees. This plan can be in the form of a SWMP amendment or interagency agreements. Permittees are accountable for understanding their role and responsibilities regarding permit conditions.

17. PERMITTEES LEGAL AUTHORITY. The permittees are required to have the legal authority necessary to successfully enforce, implement, and complete the various activities described in the permit and SWMP. Adequate legal authority is required for the following: control the quality of industrial sites storm water; prohibit illicit discharges; control spills, dumping or improper disposal; control of the contribution of pollutants from one portion of the system to the other; require compliance with ordinances; perform site inspections and monitoring. Compliance schedules were included in Part III of the permit for the attainment of these legal authorities by the permittees.

18. PERMITTEES RESOURCES. Part II.F. of the permit requires permittees to provide adequate support capabilities to implement their activities under the SWMP. Compliance with Part II.F. will be demonstrated by the permittees ability to fully implement the SWMPs, monitoring programs, and other permit requirements. The permit does not require specific funding or staffing levels, thus providing the permittees the ability, and incentive, to adopt the most efficient and cost effective methods to comply with permit requirements.

19. MONITORING AND REPORTING.

a. Reports Required: Permittees are required (40 CFR 122.42(c)(1)) to contribute to the preparation of an annual system-wide report including the status of implementing the SWMP; proposed changes to the SWMPs; revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application; a summary of the data, including monitoring data, accumulated throughout the reporting year; annual expenditures and the budget for the year following each annual report; a summary describing the number and nature of enforcement actions, inspections, and public education programs; and identification of water quality improvements or degradation. The permittees are required to do annual evaluations on the effectiveness of the SWMP, and institute or propose modifications necessary to meet the overall permit standard of reducing the discharge of pollutants to the maximum extent practicable. To allow the orderly collection of budgetary and monitoring data, the annual report due date relates to the permittees' fiscal year and monitoring seasons. Copies of these reports will be available to the public.

b. Monitoring: The permittees are required (40 CFR 122.26(d)((2)(iii)(C) and (D)) to monitor the MS4 as necessary to provide data to assess the effectiveness and adequacy of SWMP control measures; estimate annual cumulative pollutant loadings from the MS4; estimate event mean concentrations and seasonal pollutants in discharges from major outfalls; identify and prioritize portions of the MS4 requiring additional controls, and identify water quality improvements or degradation. The permittees are responsible for conducting any monitoring necessary to characterize the quality of discharges from the MS4.

Due to the variability of storm water discharges, the cost of monitoring needs to be balanced with the monitoring objectives and the goal of actually implementing controls which directly effect storm water quality. The Region will make future permitting decisions based on the monitoring data collected during the permit term. The public will also be looking for evidence of pollutant reductions. Part V of the permit requires two types of monitoring: storm event representative monitoring and floatables monitoring.

I. Representative monitoring. The monitoring of the discharge of representative outfalls during actual storm events will provide information on the quality of runoff from the MS4, a basis for estimating annual pollutant loads, and a mechanism to evaluate reductions in pollutants discharged from the MS4. Results from the monitoring program will be submitted annually on Discharge Monitoring Reports.

(1) Requirements: Throughout the permit term, the permittees are required to monitor the parameters listed in Table V.A.1.a, at the monitoring locations indicated in Table V.A.1.b of the permit.

(a) Parameters: Region 6 established parameter monitoring requirements based on the information available regarding storm water discharges (e.g., application monitoring, studies) and the potential environmental impacts of these discharges. Refer to Section 13 of this fact sheet for additional discussion of water quality issues.

Fecal Parameters. Lake Pontchartrain (a large shallow estuarine lake) has in the past been closed to contact recreation due to elevated fecal coliform levels. Fecal Coliform is an indicator of sanitary sewage, which contains pathogens, rather than animal waste. The permit requires the permittees to monitor for Fecal Coliform.

Oxygen Demand Related Parameters. Various studies (LDEQ, Department of Wildlife and Fisheries, and University studies) have indicated that Lake Pontchartrain, particularly large areas in the southeastern and east central part of the lake, is subject to severe dissolved oxygen depletions (anoxic condition). These depletions impact the survival and diversity of organisms in the water and bottom sediments. The application monitoring data indicated elevated levels of BOD_5, COD, TDS, and Phosphorus. The monitoring of oxygen demand parameters (BOD_5 and COD) will indicate the discharges oxygen depletion potential. Nutrients (Nitrogens and Phosphorus) stimulate algal blooms by eutrophication (over enrichment) in coastal areas. Bacterial decomposition of these blooms consumes oxygen and can lead to anoxic conditions. Nitrogen more than Phosphorus, typically controls plant growth in marine systems. Region 6 determined the various forms of Nitrogen (TKN, Ammonia, Nitrate, and Nitrite) should be monitored for in the MS4 discharges to allow future analyses to more reasonably discern the sources of Nitrogen, and therefore potential appropriate controls. COD has also been included as a monitoring parameter to compensate for the potential interference (e.g., metals) of the BOD_5.

Toxic Parameters. Lake Pontchartrain, particularly the southern portion most directly impacted by New Orleans and adjacent urban areas' storm water runoff, chronically receives a broad array of man-made pollutants. Toxic pollutants are toxic to aquatic animals and can bioaccumulate in fish and shellfish, potentially resulting in toxic effects to humans. As discussed in Section 13 of this fact sheet Cadmium, Chromium, Copper, Nickel, Lead, & Zinc are considered parameters of concern, and are included in the permit's monitoring requirements.

Pesticide Parameter. The monitoring of Diazinon is required due to Region 6's experience with other MS4 monitoring data. Since Diazinon was not included in the application monitoring requirements it was not shown to be a problem for the New Orleans MS4, but it is reasonable to assume it is present in the MS4's discharge. Diazinon will serve as an indicator of the effectiveness of public education programs designed to reduce pollution from pesticides, fertilizer, and herbicide use.

Other Parameters. Oil & Grease, TSS, and TDS are common storm water components and can seriously impact receiving water. The pH indicates the potential availability of metals to the receiving water flora, fauna, and sediment.

(b) Frequency: The frequency of annual monitoring is based on monitoring at least one representative storm event per season. The seasons in the area are as follows: December-February; March-June; July-September; and October-November. The monitoring frequency (once/season) is based on permit year, therefore the first complete calendar year monitoring may be less than the stated frequency.

(2) Representative Monitoring - Rapid Bioassessment Option. Biological monitoring techniques offer the ability to indirectly assess the quality of storm water discharges from the municipal separate storm sewer system by assessing the "health" of the receiving water. Rapid bioassessment protocols evaluate the number, diversity, and relative "pollution tolerance" of aquatic species in the receiving waterbodies (e.g. streams, rivers, lakes, estuaries, etc.). Either fish or benthic organisms (bottom-dwelling insects, etc. that serve as food supply for higher organisms) can be studied. Comparing the types and numbers of organisms collected from waterbodies receiving discharges from the MS4 to those collected from a "reference site" relatively un-impacted by urban runoff, provides an indication of how degraded the waterbody is. For example, a healthy stream would typically have greater species diversification and a higher number of species that require clean water to survive and reproduce. A degraded stream would have relatively fewer species and a larger proportion of species that are tolerant of pollution.

While rapid bioassessments do not directly measure the quality of storm water discharges, they can be an important tool in tracking trends in water quality. The permittees will be given the option of replacing a portion of the parameter representative monitoring required by the permit with a rapid bioassessment monitoring program. Upon approval by Region 6, the permittees may replace the representative monitoring for years 2, 3, and 5 with rapid bioassessment of at least two receiving waters plus a reference site. Representative monitoring of storm water discharges will still be required during years 1 & 4.

ii. Floatables Monitoring. Records of estimates of floatables and debris removed from two pump stations shall be maintained to investigate trends in water quality issues related to manmade debris and floatables. The comparison of yearly results should allow the permittees and Region 6 to assess the effectiveness of the SWMP elements designed to reduce the discharge of floatables.

20. PERMIT MODIFICATIONS.

a. Reopener Clause: The Region may reopen and modify the permit (including SWMP) based on: changes in the State's Water Quality Management Plan, and State or Federal requirements; adding permittees; SWMP changes impacting compliance with permit; other changes deemed necessary by the Director to adhere to the Act. Implementation of the SWMP is expected to result in the protection of water quality standards. However, if new information indicates the discharges from the MS4 are causing (or significantly contributing to) a violation of the State's water quality standards, the Director may reopen and modify the permit.

b. Other changes: Part VII.B, C, and D of the permit addresses requirements concerning possible changes to the SWMP, permittees status, and other changes.

i. Terminated Permittees: The process for terminating coverage for an existing permittee shall adhere to the regulations 40 CFR 122.64.

ii. SWMP Changes: The SWMP is intended as a functioning instrument for the permittees' use. Therefore minor changes and adjustments to the various SWMP elements are expected. Incorporating this document into an NPDES permit has some inherent conflicts. The regulatory rules concerning permit changes and modifications do not easily translate to the minor changes to the SWMP that will be necessary during the permit term. The changes may be required to more successfully adhere to the permit goals. Region 6 has determined that minor changes specifically described in the permit, shall not be considered permit modifications as defined in the regulations. Part II.G.2 of the permit describes the allowable procedure for the permittees to perform additions and minor changes to the SWMP. This does not imply the permittees *are allowed* to impact or change elements directly related to SWMP permit conditions. The Region will review changes requested by the permittees. The Region has 60 days to respond to the request and inform permittees if the changes are either disallowed or require a formal permit modification procedure.

iii. Additions: The Region's intent is to allow the permittees to annex lands and accept the transfer of operational authority over portions of the MS4 without mandating a permit modification. Implementation of appropriate SWMP elements for these additions (annexed land or transferred authority) is required. Upon notification of the additions in the Annual Report the Region may require a modification to the permit based on the new information.

iv. Monitoring outfalls: The permit is issued on a system-wide basis in accordance with Section 402(p)(3)(i) of the Act and authorizes discharges from all portions of the MS4 owner or operated by the permittees. Since all outfalls are authorized, changes in monitoring locations, other than those with specific numeric effluent limitations, shall be considered minor modifications to the permit and will be made in accordance with the procedures at 40 CFR 122.63.

21. CONSIDERATIONS UNDER FEDERAL LAW AND PROGRAMS.

a. Endangered Species Act. The endangered species listed for Orleans Parish are: Arctic Peregrine Falcon - seasonal, known occurrence; Brown Pelican - known occurrence; Gulf Sturgeon - known occurrence; Pallid Sturgeon - Mississippi River, possible occurrence. The discharge which is being controlled by the terms of this permit is the result of natural precipitation, and as such would continue to be discharged regardless of the federal action represented here. The terms of this permit do require that the municipalities minimize or reduce to the maximum extent practicable the pollutants in the storm water runoff from the municipality. Region 6 has concluded therefore that the issuance of this permit will have no effect on any listed, or candidate, endangered or threatened species; or their critical habitat.

b. National Historic Preservation Act. Based on the information provided to date no sites listed or eligible for listing in the National Historic Register will be effected by proposed activities to reduce pollutants in the permittees' natural runoff. The applications for this permit were forwarded to the Louisiana State Historical Preservation Officer (SHPO) for comment. The SHPO did not express an interest in the application.

c. Estuary Program. The Barataria-Terrebone Bay estuary complex was accepted for designation under the National Estuary Program in 1990. The Comprehensive Conservation and Management Plan (CCMP) is expected to be complete by September 1996. The New Orleans storm sewer system does not directly discharge to this estuary. The estuary is downstream of the Mississippi River Basin Segment 0703 which does receive direct discharges from the City's MS4 (all dry weather flow from the system).

22. STATE CERTIFICATION OF THE DRAFT PERMIT. Concurrently with Public Notice of the draft permit, Region 6 is formally requesting State Certification of the permit, as required by Section 401(a)(1) of the Act, and 40 CFR 124.53. The final permit will contain any condition required by the State as a condition for Certification.